

DEVICE AND METHOD FOR SEPARATING COMPONENTS OF A FLUID SAMPLE

ABSTRACT OF THE DISCLOSURE

A device and method for separating heavier and lighter fractions of a fluid sample. The device includes a plurality of constituents comprising a container and a composite element in the container. The composite element is a separator comprising a deformable bellows, a ballast mounted to the lower end of the bellows, and a float is engageable with an upper end of the bellows. A fluid sample is delivered to the container and the device is subjected to centrifugation whereby the centrifugal load causes the ballast to move toward the bottom of the tube and causes an elongation and narrowing of the bellows. The separator then moves down the tube and stabilizes in a position between the separated phases of the fluid sample. Termination of the centrifugal load enables the bellows to return to its original condition in sealing engagement with the walls of the tube. The dense formed phase of the fluid sample will lie between the separator and the bottom of the tube, while less dense liquid phase of the fluid sample will be the separator.